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NPTEL

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Courses » Energy Efficiency, Acoustics and daylighting in Building

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Unit 7 - Thermal Design of Buildings

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Course outline

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- Quiz : ASSIGNMENT

ASSIGNMENT 6

The due date for submitting this assignment has passed.

As per our records you have not submitted this **Due on 2019-03-13, 23:59 IST.** assignment.

Note : In Numeric type questions, kindly please enter the numeric value only upto 2 decimal places. Do Not enter units or some other expression as this might evaluate the answer as wrong. eg: if answer is '45.60' then '45.60 degrees' as an answer would be taken as wrong by the computer.

1) The ratio of heat admitted to heat incident is called as _____ **2 points**

- Decrement factor
- Sky factor
- Solar gain factor
- Admittance factor

No, the answer is incorrect.

Score: 0

Accepted Answers:

Solar gain factor

2) When solar azimuth and wall azimuth angle are the same. What would be the Horizontal shadow angle (in degrees)? **2 points**

- 15
- 45
- 0
- 90

No, the answer is incorrect.

Score: 0

Accepted Answers:

0

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Funded by

Acoustics and Noise

Sound Transmission

Noise Control

Fundamentals of Daylighting

Daylighting Design

Interaction Session

 Shading effect ratio

No, the answer is incorrect.

Score: 0

Accepted Answers:

Summer shading performance

4) Ideally, the glass used for windows in buildings should have

2 points

- High thermal and High visible transmittance
- High thermal and low visible transmittance
- Low thermal and low visible transmittance
- Low thermal and high visible transmittance

No, the answer is incorrect.

Score: 0

Accepted Answers:

Low thermal and high visible transmittance

5)

Given that direct and diffused solar radiation on horizontal surface are 750 W/m^2 and 250 W/m^2 respectively. There is a vertical window of area of $1.8 \text{ m} \times 1.5 \text{ m}$ (Width X Height) on a South facing wall when the sun is at an azimuth angle of 225° measured clockwise from north and the altitude angle of the sun is 60° . Calculate the length of the corresponding Horizontal shading device (in meters) that will just block the solar radiation entering the window for the given data.

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 0.55,0.7

4 points

6)

Given that direct and diffused solar radiation on horizontal surface are 1050 W/m^2 and 250 W/m^2 respectively. There is a vertical window of area of $1.5 \text{ m} \times 1.2 \text{ m}$ (Width X Height) on a east facing wall when the sun is at an azimuth angle of 140° measured clockwise from north and the altitude angle of the sun is 50° . What is the Horizontal shadow angle (in degrees) that will just block solar radiation entering the window?

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 49.5,50.5

4 points

7)

Given that direct and diffused solar radiation on horizontal surface are 1050 W/m^2 and 250 W/m^2 respectively. There is a vertical window of area of $1.5 \text{ m} \times 1.2 \text{ m}$ (Width X Height) on a east facing wall when the sun is at an azimuth angle of 140° measured clockwise from north and the altitude angle of the sun is 50° . What is the Vertical shadow angle (in degrees) that will just block solar radiation entering the window?

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 61,63

4 points

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